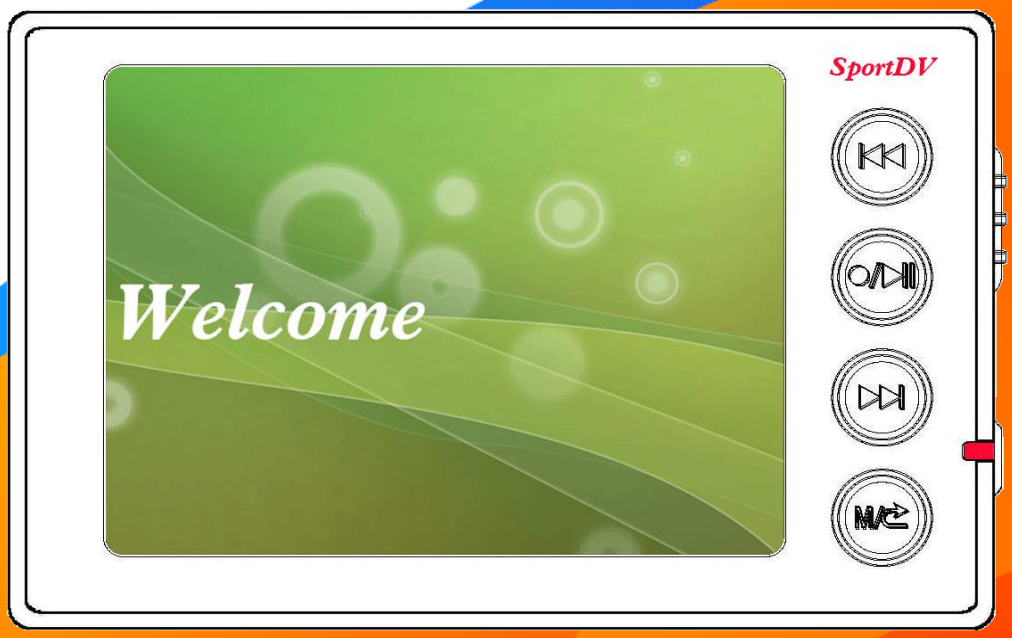
USER MANUAL



Please read this user manual carefully and thoroughly before any attempt to install

and operate this product and retain it for your future reference.

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Approval Information:

All our products meet the requirements of approval FCC or CE, and are granted the FCC or CE certification. They are authorized to bear FCC or CE mark.

FCC:

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

CE:

This product complies with standards including Low Voltage Device Directive 73/23/EEC; EMC Directive 89/336/EEC and R&TTE Directive1999/5/EC. It passed the subject tests by the authority concerned and is authorized to bear CE mark.

OVERVIEW

Thank you for buying the **Digital Video Recorder**. Please read this manual carefully before using this product in order to get the most out of all the features and functions.

Convenience, Quality, Flexibility and **Fun** are all what the DVR provides. The DVR can record Movies, In addition recording Audio or Video clips only, and taking quality photos, can also be used as a Mass Storage, all the medias can be uploaded to PC to editing and sharing.

EU Environmental Protection
Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Trial recording

Before you record real-time important events, you may want to make a trial recording to make sure that the recorder and the camera are working correctly.

Notes on image data compatibility

Playback of photos or movies recorded with your recorder on other equipment and playback of photos or movies recorded or edited with other equipment on your recorded are not guaranteed.

Do not shake or strike the recorder

In addition to malfunctions and inability to record photos or movies, this may render the SD card unusable of image data breakdown, damage or loss may occur.

LCD screen and mini camera

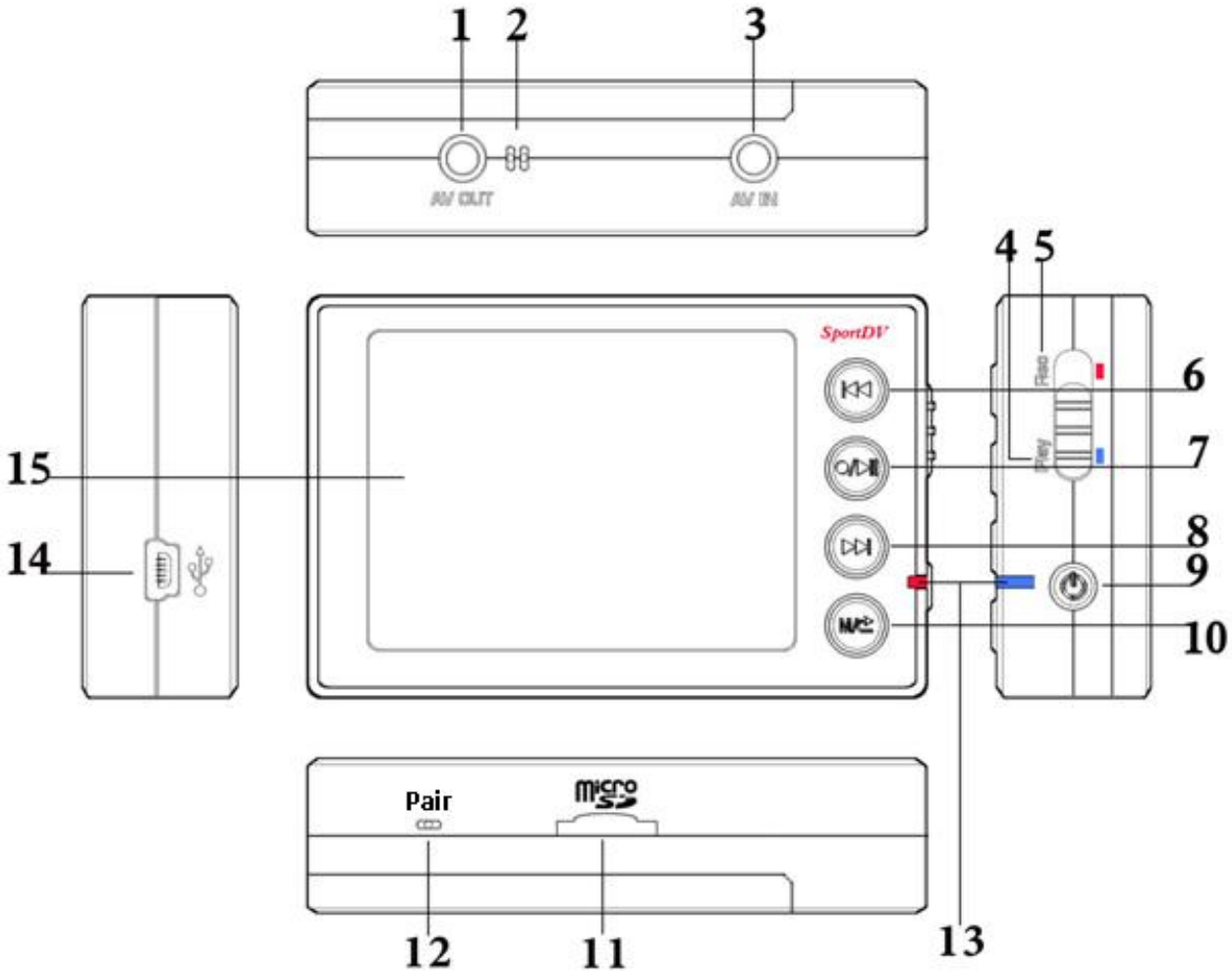
Be careful when placing the camera near a window or outdoors. Exposing the LCD screen or the lens of camera to direct sunlight for long period may cause may be harmful to its performance.

Back up recommendation

To avoid the potential risk of data loss always copy data to a disk. or hard drive

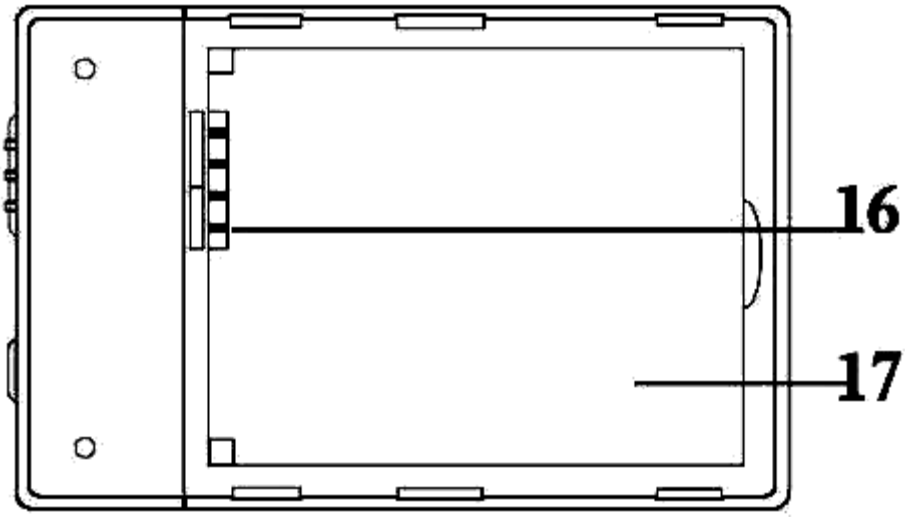
Quick using guide

DVR DVR & buttons



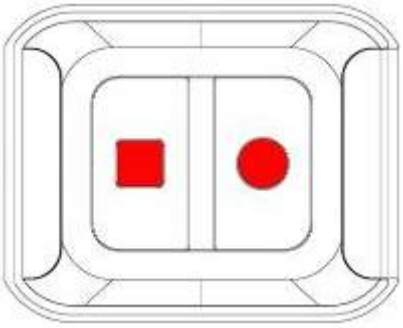
1.AV Output
2.Microphone
3.AV Input
4. Playing- mode switch(Blue)
5.Recording- mode switch（Red）
6. Backward key(long press)/ Volume up key
Key lock（long press in recording）
7. Record/ Play/pause/ confirm key
8. Forward(long press)/ Volume down
9. Power ON/OFF switch
10. Menu/ Return key
11.Micro-SD(TransFlash) slot key
12.Remote control pair
13Indicator(Red/Charging;Blue/Working)
14. USB port
15. LCD Screen

Key release（long press in recording）



16. Battery contact terminal 17. Battery holder

Remote control



Power On & Start recording Stop recording & Power Off

Operation:

Step 1: Make sure DVR is power off, then press on remote control to power on and start record (first continuous vibration, twice rapid vibration).In this state, DVR is recording but screen is still off.

Step 2: Press to stop recording and save the video you record, immediately DVR power off. (Rapid vibration)

Remarks: During remote control recording status, all buttons on DVR are unusable for any operation except Power ON/Off. Please Press on remote control to power off. And then buttons on DVR can be operated again.

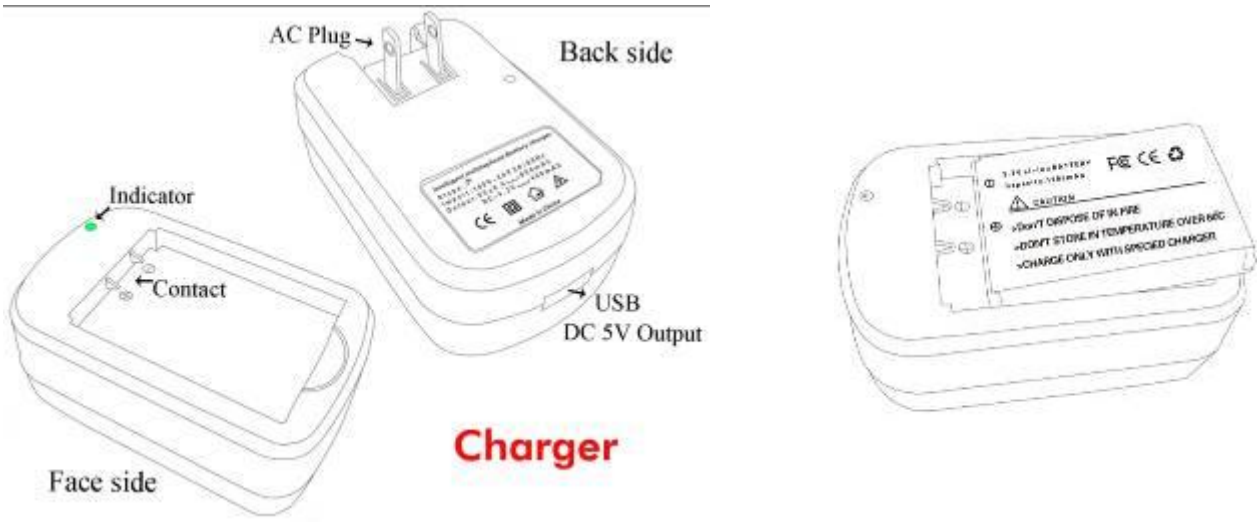
Available distance is about 90 feet without block outside; Available distance is about 24 feet inside the room.

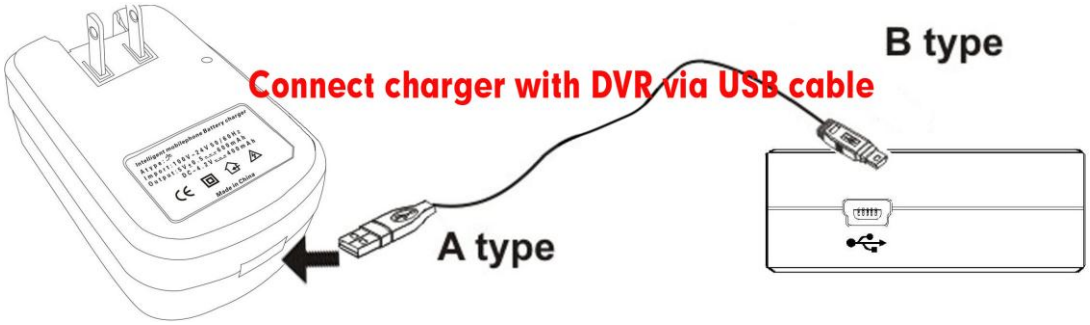
Charger：

Please read the user manual carefully before using charger.

A. Charge battery by charger in cradle：

1. Put the battery into charger. (The side with tags should be upward)
2. Connect the charger into 110V-240V AC socket





B. Charge battery by DVR

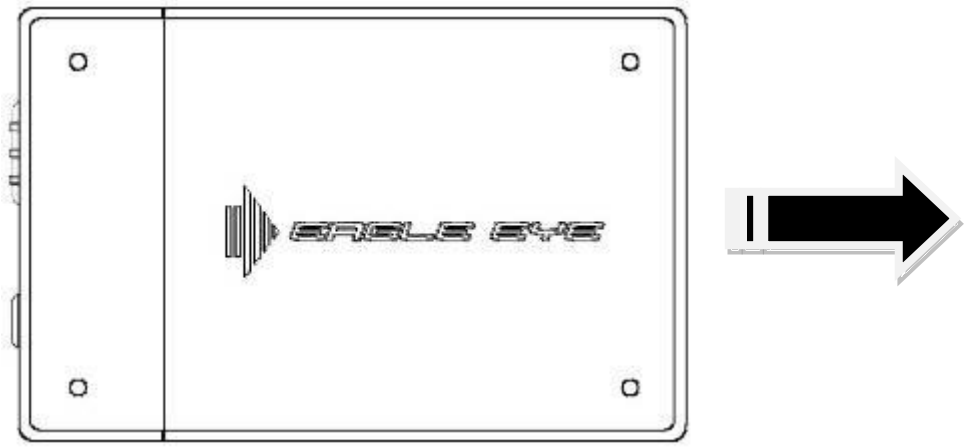
1. Connect DVR with charger via USB cable.
2. Connect the charger into 110V-240V AC socket.
3. During power charging, the red indicator of the charger and the DVR will continuously light.
4. After the power is fully charged, the green indicator of the AC charger will turn on, the red indicator of DVR will turn off at the same time.

- *When not planned for use, do not leave the battery plugged in for long periods*
- *For the first time usage, charge the battery at least 8 hours. Make sure the power is off when charging battery*

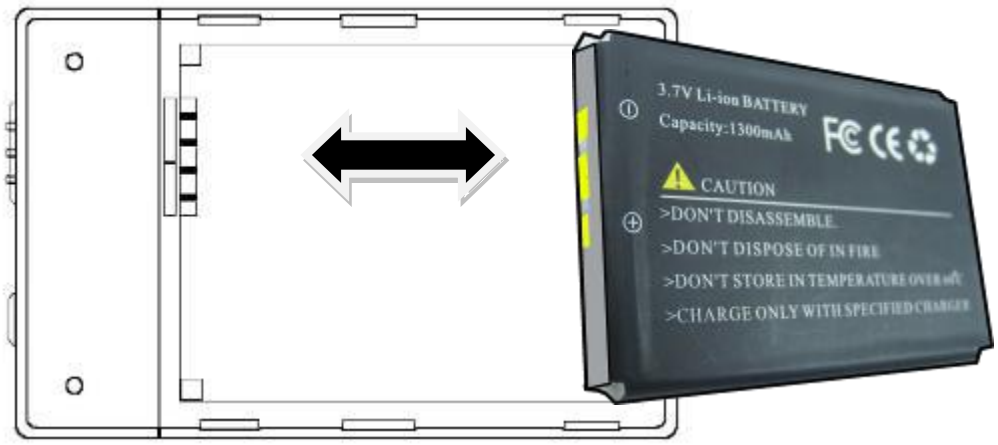
Basic operation link with other equipments

Battery installation

Open the back cover as the picture shows：



Put the tags side upward, let the 4 battery contact points aligned with points on battery holder.



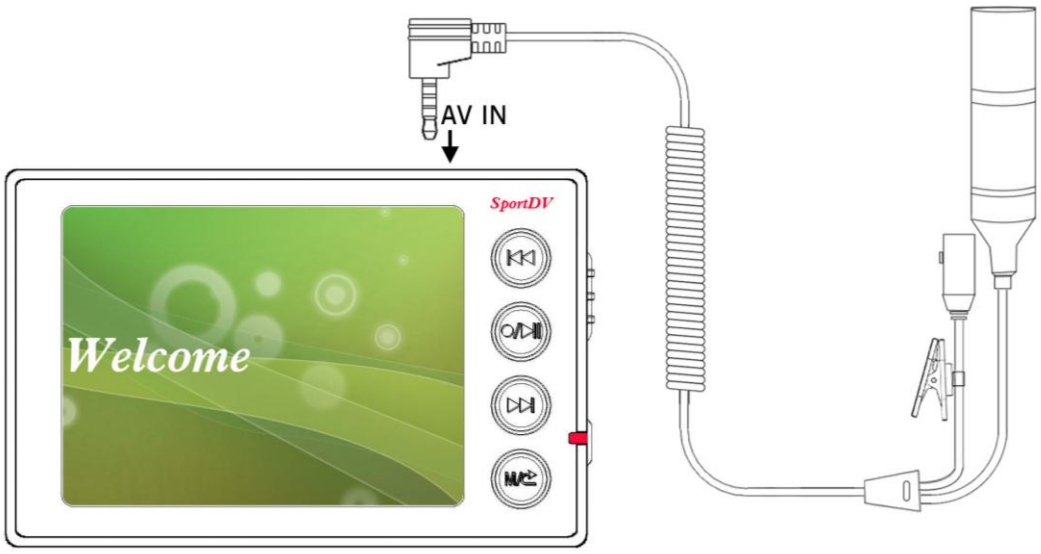
Close the cover.

Battery using time information form：

Capability	Charging time	Standby time	Playing time	Recording time
1300mAh	Approx ： 4 hours	Approx ： 2 hours and 19 minutes	Approx ： 4 hours	Approx one hour and 43 minutes

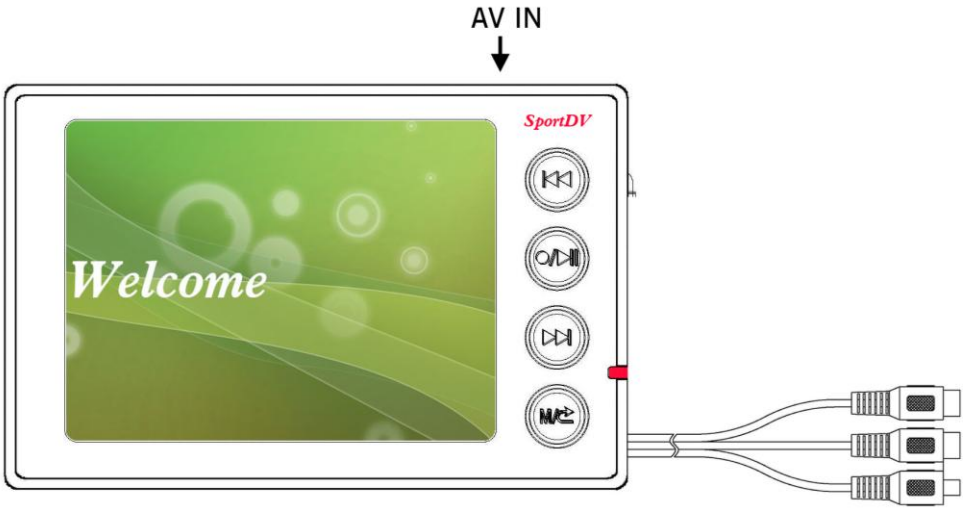
Connect with the camera：

Case1-Connect with CM520



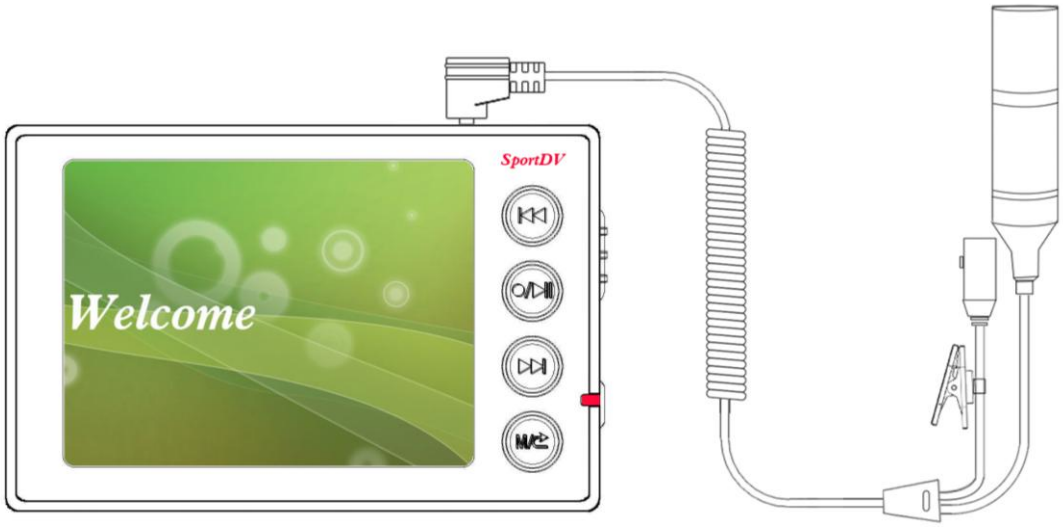
1. Put the AV-out cable of the camera into AV-in port of DVR, and power on the DVR.
2. Slide switch to “REC” side, the screen will show the live video and prepare recording.

Case2-Connect with a CCTV camera



1. Connect the DVR with a CCTV camera via the RCA of AV cable, insert one terminal into AV-in port of the DVR, insert RCA terminals into camera port:
   Yellow: Video in port. Red: Audio in port Black: DC 5V Output
2. Power on the DVR, The TFT screen will show the live video when switch at “REC” location.

Start recording



① Glide switch to REC side， long pres **[M/↵]** into setting menu.

② Press [⏮] or [⏭]to select, press [●/⏯] to confirm, and then press **[M/↵]** to return

③ Press [●/⏯] to record, screen will show ●REC

④ Press [●/⏯] again to stop recording, ●REC will disappear.

Remarks: When star record by [●/⏯], please use [●/⏯] to stop record, all the function of the remote controller is useless.

Any crash down caused by wrong operation, please reset battery.

- One key record: Normal recording mode, the video files will be saved per 15 minutes if no other operation until the memory card is full.
- Motion detective recording: Record when any object moves, max per 15 minutes per video file. If no any motion, recording will stop automatically after 15 seconds.
- Timer programs recording: Record according to the time you set, the file will be saved per 15 minutes if time you set is more than 15 minutes.
- Automatic Cover： The system will delete the earliest files when the memory is full for continuous recording.
- Recording Content： DVR can record three type files：
  AV: Audio &Video　　Video: Without Audio　　：　Without Video

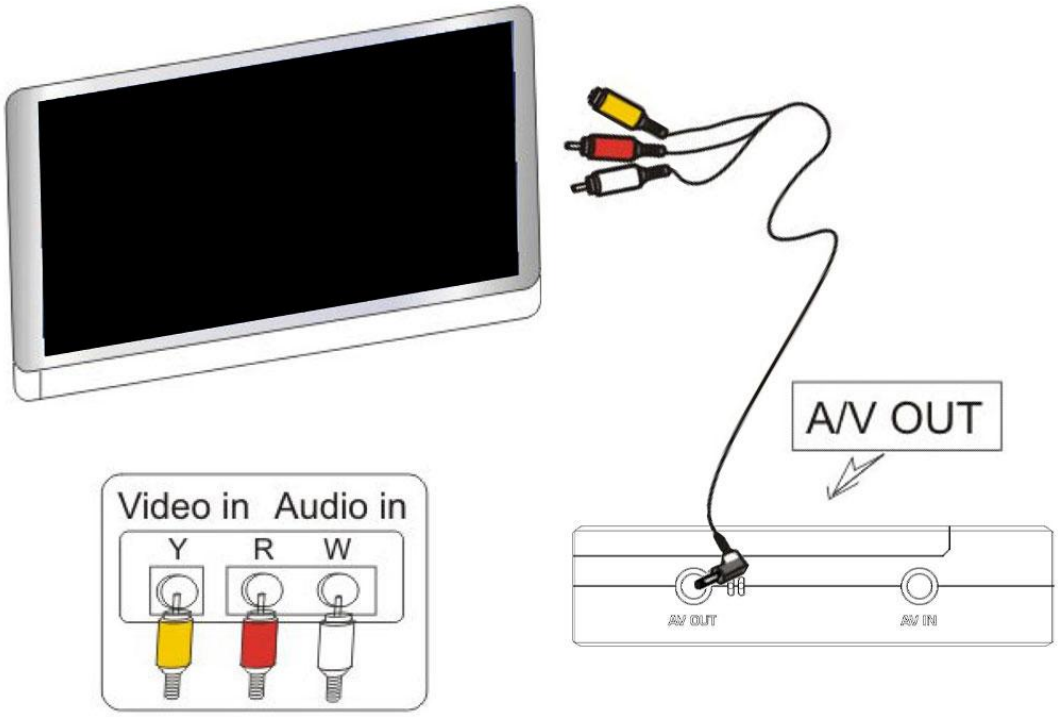
Attention：

The DVR has a vibrate notice when low power and no video signal input.

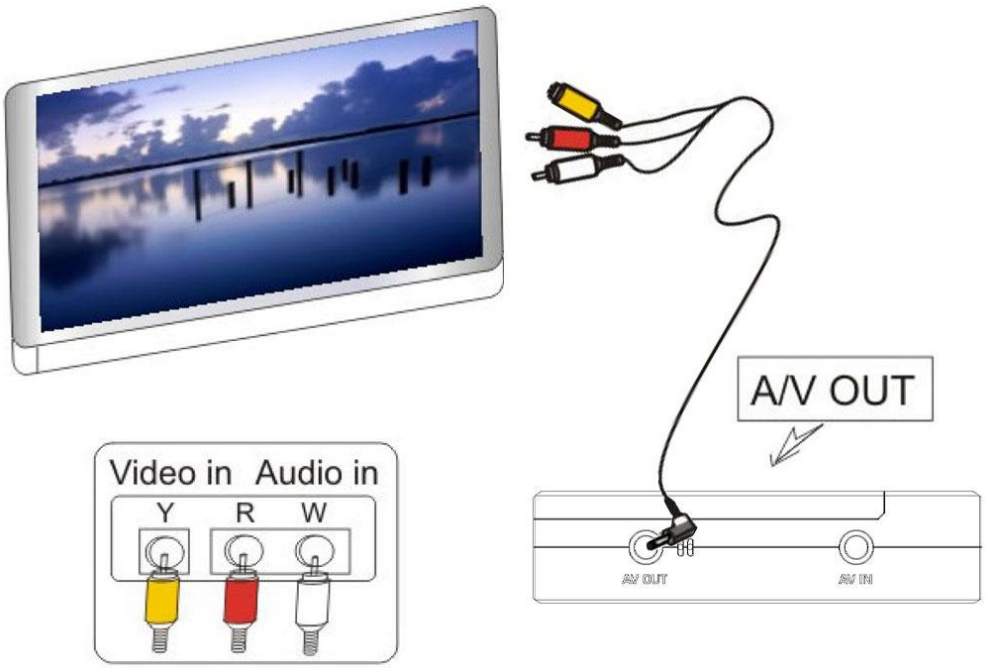
If the camera did not connect with the DVR correctly, the DVR will vibrate because of no signal, please check the connection carefully.

If the power is low, the DVR will continuous vibrate 2 times, at the same time stop recording and turn off automatically.

Connect with TV：



1. Connect DVR with TV via AV cable.

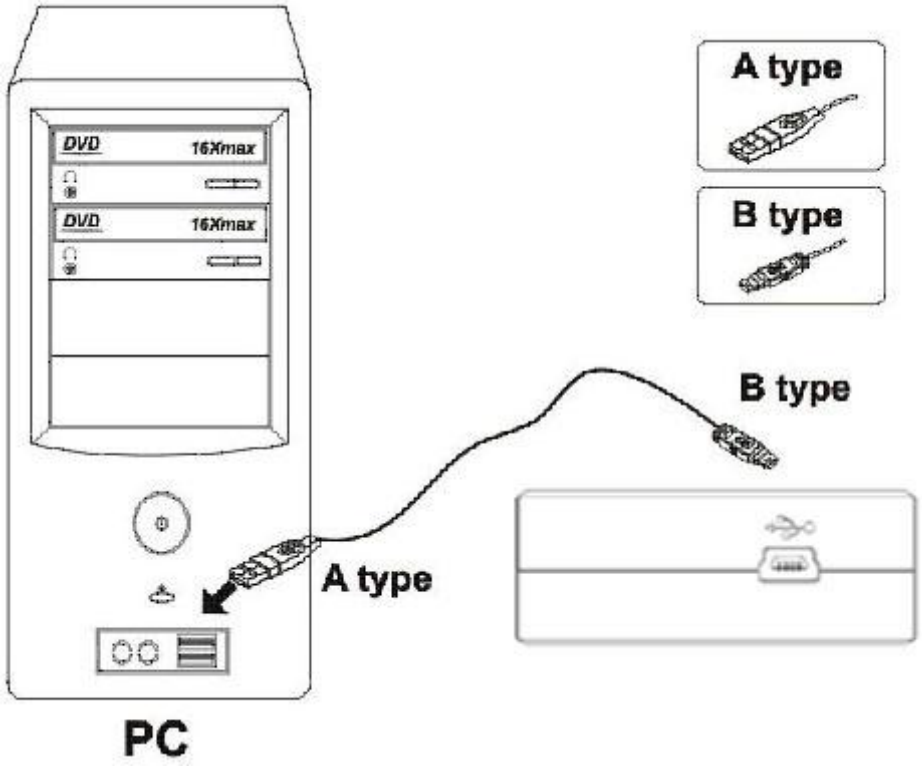


2. Power on DVR, glide switch to “Play” side. Use ［⏮］and ［⏭］to select files, and ［●/⏯］to play.

The default signal output mode is PAL, if the system in your local place is NTSC, please enter setting menu and select the correct output system. More details please consider page30.

Connect with computer：

①Power on the DVR, connect the DVR with computer via USB cable whether DVR is separate or connected with camera.



②Then DVR will show “USB connected”

Remark:

*Connect with computer at power off states, the DVR will enter USB power mode, can do any operation as well.

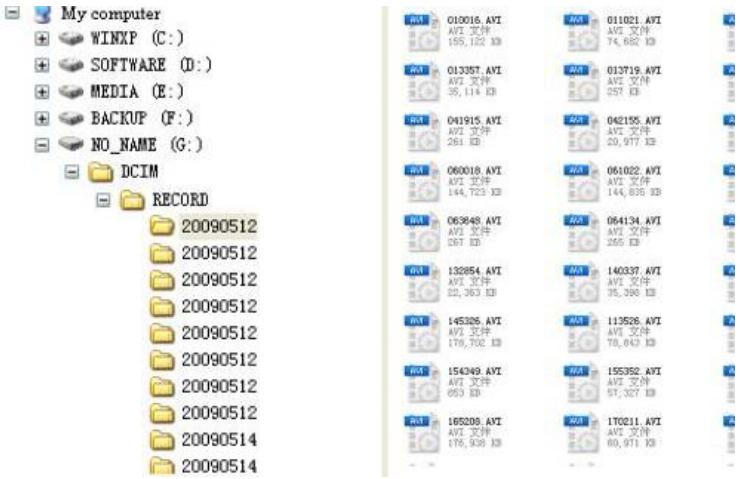
*Connect with computer at recording states, the DVR will enter USB power mode too.

* Connect with computer at power on states, the DVR will enter Mass Storage mode.

* The battery is charging so long as connect with computer, please power off the DVR to save the charging time.

③ Open “my computer” to check if there has the removable hard disk, called “NO_NAME”.

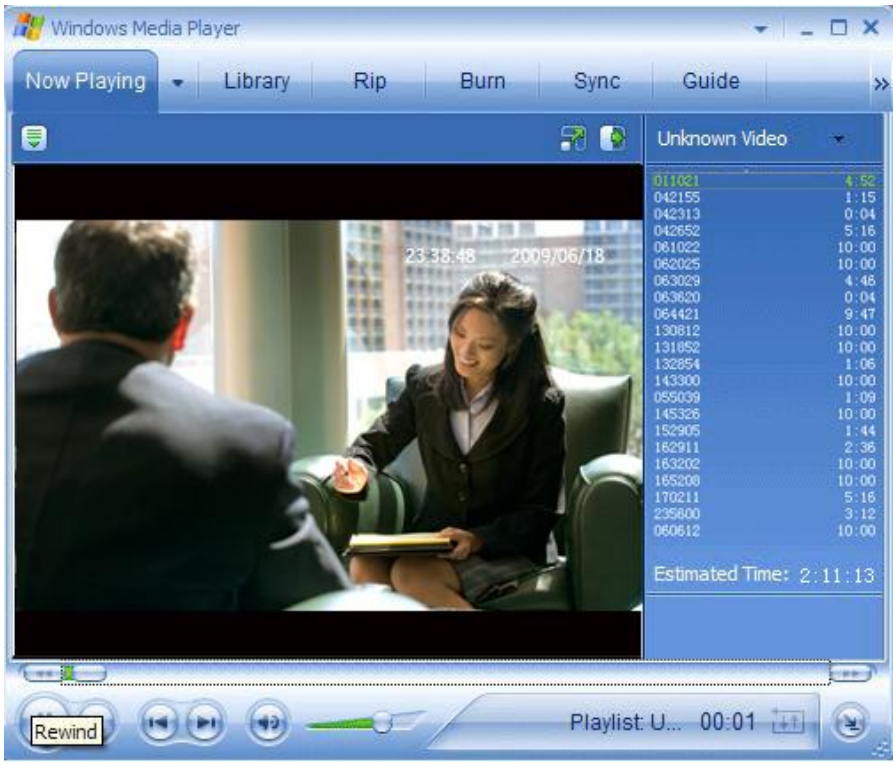
Picture details：



④Open the video files in the folders.

⑤Check the video files in the folders, and play it by the default media player in your computer.

Remark： If the media player can’t recognize the files, please ensure the player have MPEG-4(XviD) codec built-in.



Function Modes

Booting picture：

Recording interface：

Recording Mode：

(1)Recording symbol
(2)Current detail time
(3)Current Date
(4) Card icon (if memory card available)
(5) Available memory size
(6) Battery capacity
(7) Current time
(8) Resolution of recording
(9) Record content
(10) Loop record

Audio recording mode：

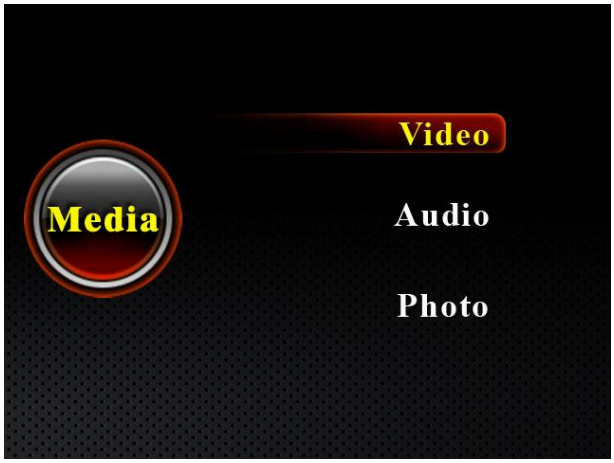
When select “Recording Content” / “Audio”, and press [●/▶|] to confirm, then display：

Select the audio source and press [●/▶|] confirm, then the screen will display the left time of storage.

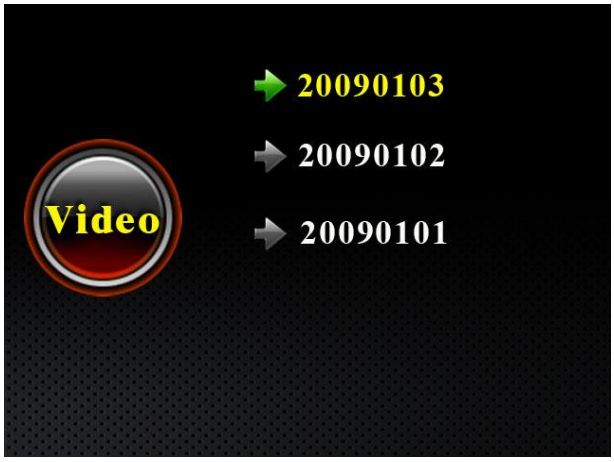
Press [●/▶|] to start recording

Multi-media folders：

Use [⏮] or[⏭]to select the folder and press [●/⏯] confirm and enter.

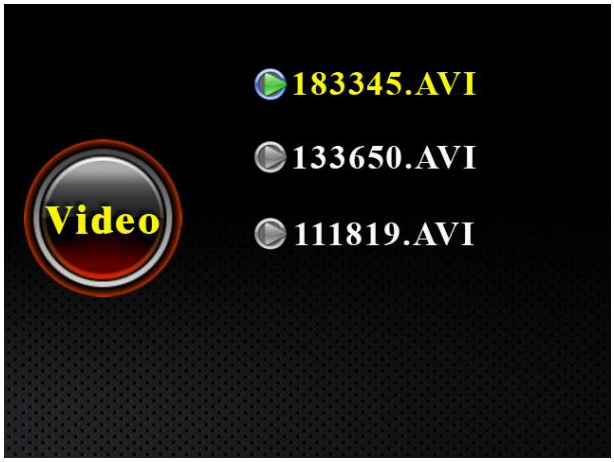


Video folder：



As picture above： ”20090103” means the folder that built in 3rd Jan of 2009. One fold for each day.

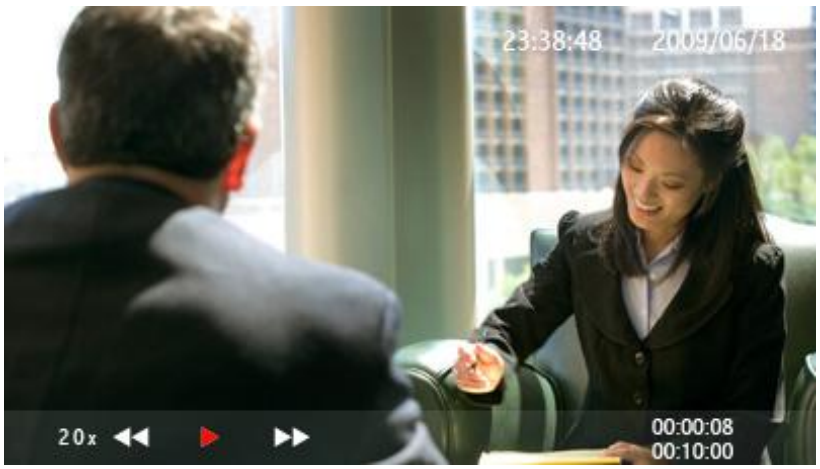
Video files：



As picture above： ”183345.AVI” means the video file that built in 18:33:45.

Video play：

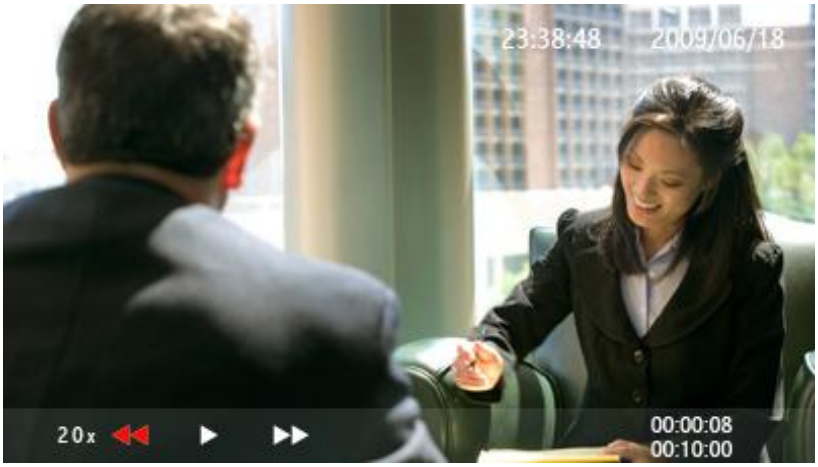
Use[⏮] and [⏭]to select a video for playing and press [●/⏯] to start play or pause.

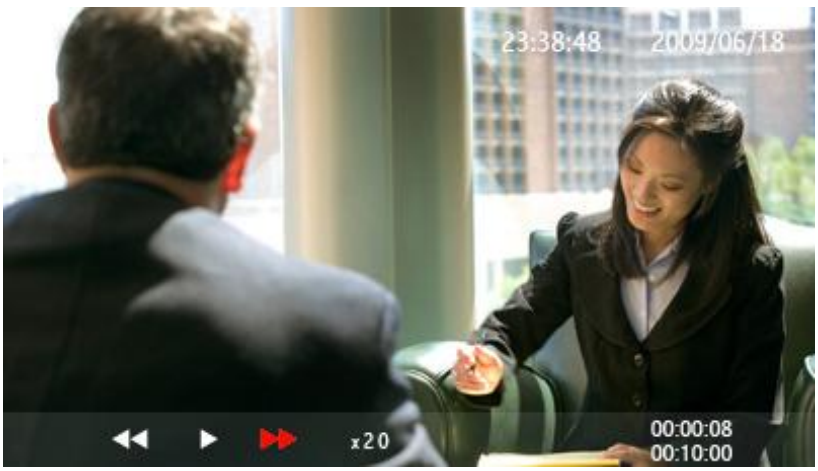


Long press [⏮] and [⏭]to toggle forward/backward selection

X2/X4/X8/X20/X1(default)

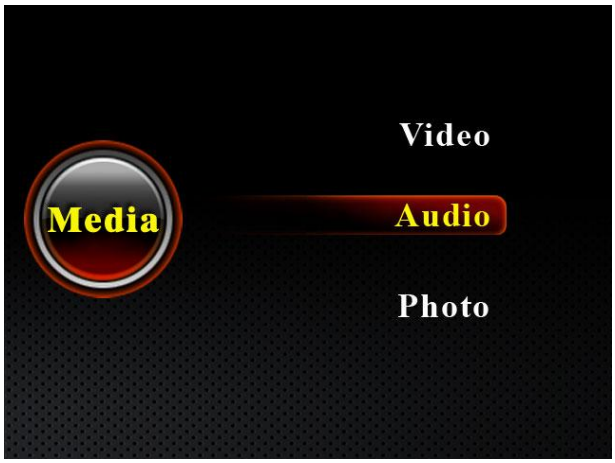
Press [●/⏯] to play or pause.





Audio folders：

Use [⏮] or [⏭] to select the folder and press [●/⏯] confirm and enter.



For the audio files that already exist， please use [⏮] and [⏭] to select the content and press [●/⏯] confirm and playing.

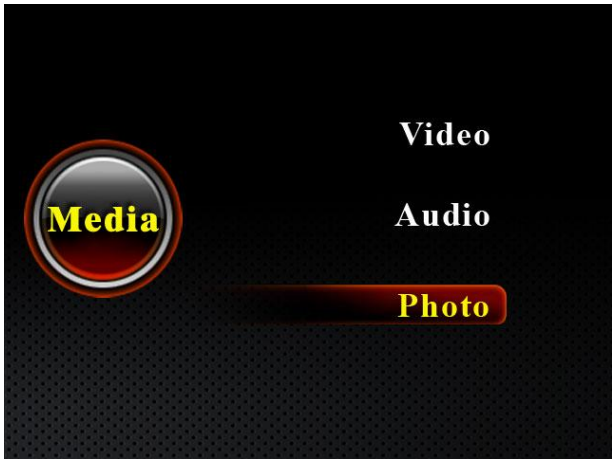
Playing interface:

Press [⏮] and [⏭] to adjust the volume.

Long press [⏮] and [⏭] to play other audio files.

Photo folders：

Press [⏮] and [⏭] to choose photo folders, press [●/⏯] to enter.



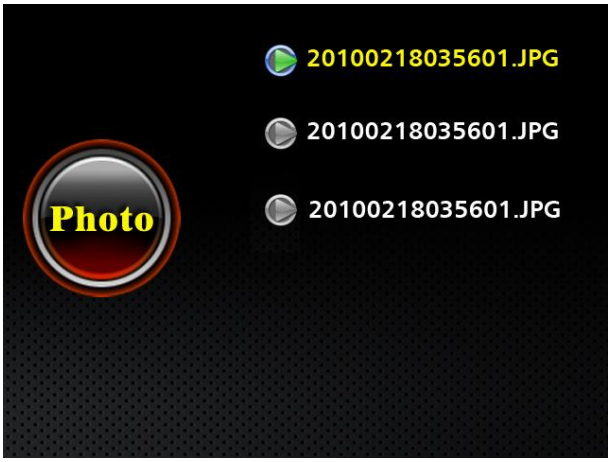
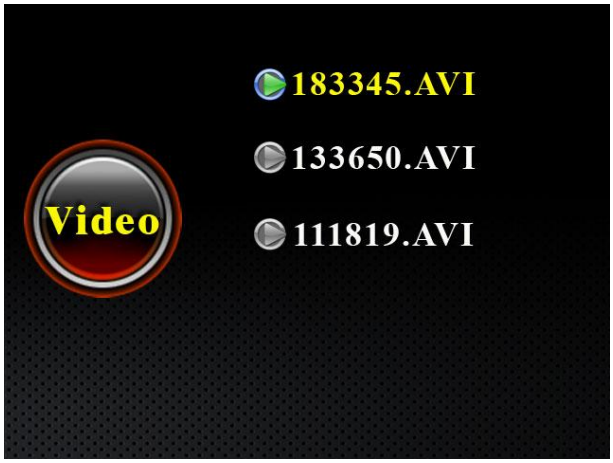


Photo playback：

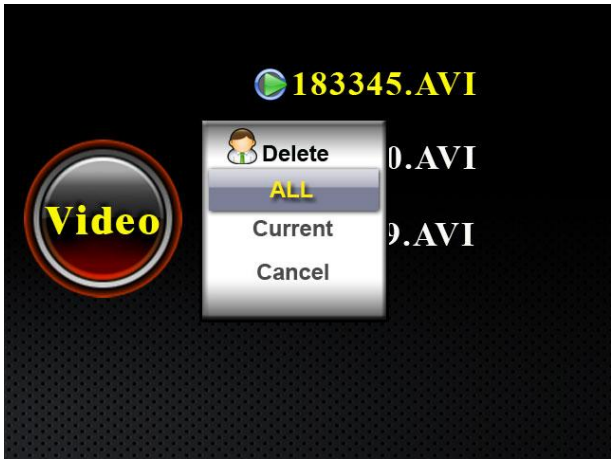
Press [⏮] and [⏭] to view other photos.

Remark: Photo format is JPG, and resolution is 640*480.

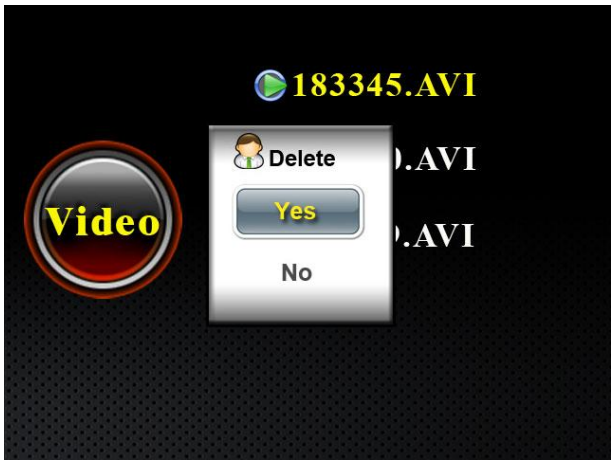
Delete files：



Enter into folder, select the files you want to delete, press [⏻] until the delete dialog appears.



Use [⏮] and [⏭] to choose ALL/CURRENT. Press [●/⏯] to confirm or select "Cancel" to quit operation.



Use [⏮] and [⏭] to select YES or NO. Use [●/⏯] to confirm delete or quit.

ALL： Delete all data

CURRENT： Delete the file to be selected

CANCEL： Cancel the delete operation

Attention：The data can not be restored once deleted, if unsure you may want to back up in advance.

Operations to delete video, audio and picture files are as same as above.

Function setting:

Use [⏮] and [⏭] to select the content you need.

Record setting：

Use [⏮] and [⏭] to select “REC setting” menu, press [●/⏯] to confirm and enter.

RECORDING MODE

Press [●/⏯] enter Recording Mode，use [⏮] and [⏭] to select the recording mode.

Press [●/⏯] to confirm and press [M/↩] quit.

RESOLUTION

Use [⏮] and [⏭] to select “Resolution”,

Press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select the suitable resolution, press [●/⏯] to confirm and quit.

QUALITY

Use [⏮] and [⏭] to select “Quality” menu.

Press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select the suitable resolution, press [●/⏯] to confirm and quit.

Storage memory information form：

Quality Resolution	High	Medium	Low	Battery time
720x576	≤45MB	≤36MB	≤20MB	Approx. 1 hour and 40 minutes
720x480	≤43MB	≤33MB	≤18MB	Approx.1 hour and 30 minutes
640x480	≤39MB	≤27MB	≤16MB	Approx.1hour and 32 minutes
320x240	≤12.4MB	≤9.8MB	≤8.3MB	Approx.1 hour and 50 minutes

RECORDING CONTENT

Use [⏮] and [⏭] to select “Recording Content” menu，

Use [⏮] and [⏭] to select video files recorded. Use [●/⏯] to confirm.

The “MIC” option menu will appear after you selected “AV” or “Audio”.

Use [⏮] and [⏭] to select the internal or external Microphone. Press [●/⏯] to confirm and quit.

Press [●/⏯] start recording.

Notice：

The standard Button Camera without Microphone, you need to select “internal microphone” setting if you want to record the video with sound. (There has a built in microphone in the DVR)

If you have using another camera with built in microphone, then please select the “External microphone” setting.

TIME DISPLAY

Use [⏮] and [⏭] to select Time Display menu and press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select “Yes” (display time) or “No” according to your need.

Press [●/⏯] to confirm and quit.

Remark:

The video time stamp shows current time after you select “YES”.

AUTOMATIC COVER

Use [⏮] and [⏭] to select “Automatic Cover” menu and press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select “Yes” (Automatic Cover) or “No” according to your need.

*Automatic cover function： While using this function, the system will delete the earliest files when the memory is full for continuous recording.

Press [●/⏯] to confirm and quit.

Select Memory

Use [⏮] and [⏭] to select “Storage” menu.

Press [●/⏯] to confirm and enter.

Use [⏮]and [⏭] to select “Memory” or “Micro SD” menu, press [●/⏯] to confirm and quit.

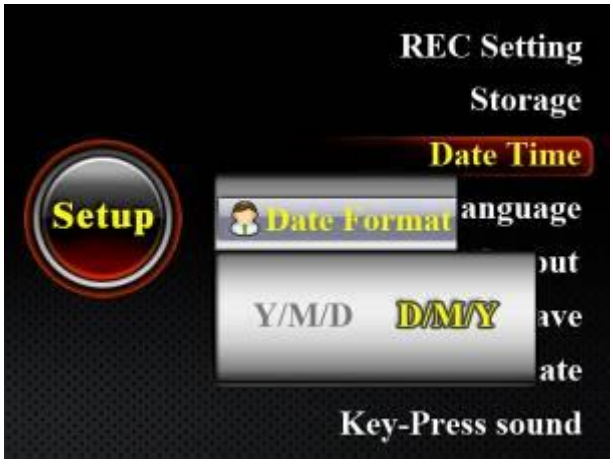
Time and Date setting

Use [⏮] and [⏭] to select "Date Time" setting.

Press [●/⏯] to confirm and enter.

Date display form setting:

Use [⏮] and [⏭] to select "Date Format" menu and press [●/⏯] to confirm and enter.



Use [⏮] and [⏭] to select the suitable form, then press [●/⏯] to confirm and quit.

Date setting:

Use[⏮]and[⏭]to select the "Date Setting" menu, press [●/⏯] to confirm and enter.

Use [●/⏯] to select the setting content, use [⏮]and [⏭] to do the setting, then press [M/↩] save the setting and quit.

Time setting:

Use [⏮] and[⏭]to select "Time Setting" Menu, press [●/⏯] to confirm and enter.

Use [●/⏯] to select the setting content, use [⏮] and [⏭]to do the setting, press [M/↩] to save and quit.

Language Setting:

Use [⏮] and [⏭] to select "language" menu, then press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select the suitable language, then press [●/⏯] to save and quit.

Video output：

Use [⏮] and [⏭] to select "Video Output" menu, then press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select the local TV system, PAL or NTSC, then press [●/⏯] to confirm and quit.

Power saving mode：

Automatic power off mode

Use [⏮] and [⏭] to select “Power Saving” menu, then press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select the setting “Power Off”, then press [●/⏯] to confirm and enter.

The default setting is “Never” power off automatically, please use [⏮] and [⏭] to change the time according to your need.

5Mins means power off automatically after 5 minutes if without operation;
10Mins means power off automatically after 10 minutes if without operation;
20Mins means power off automatically after 20 minutes if without operation;

Press [●/⏯] to confirm and quit.

After power off, we need to press the power switch button to restart it.

LCD Off automatically：

Use [⏮] and [⏭]to select “LCD Off” menu, then press [●/⏯] to confirm and enter.

The default setting is “Never” LCD off, press use [⏮] and [⏭] to select the suitable time according to your need.

1Mins means LCD off after 1 minute if without operation;

5Mins means LCD off after 5 minutes if without operation;

Press [●/⏯] to confirm and press [M/↩] to quit the setting menu.

You can restart the display of the screen after LCD off. The LCD will turn off again after the setting time.

Vibrate notice setting：

Use [⏮]and [⏭]to select “Vibrate” setting, then press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select “On” or “Off”, press [●/⏯] to confirm and quit

Select “On” menu：The DVR will vibrate while no video signal or lower power or remote control mode, .

Key press sound setting:

Use [⏮] and [⏭] to select “Key-press sound” menu, then press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select “On” or “Off”, press [●/⏯] to confirm and quit.

Select “Off” menu: turn off the sound while operating the DVR.

Brightness setting:

Use [⏮] and [⏭] to select “Brightness” menu, then press [●/⏯] to confirm and enter.

Use[⏮]and [⏭] to select increase or decrease the brightness according to your preference, then press [●/⏯] to confirm and quit. Different brightness will affect the usage time of the battery.

Format the memory card:

Use [⏮] and [⏭] to select "Format" Menu, then press [●/⏯] to confirm and enter.

Use [⏮] and [⏭] to select "Yes" or "No"

YES: Format the default memory card. After press [●/⏯] the system will format the card memory.

NO: Without any operation and quit.

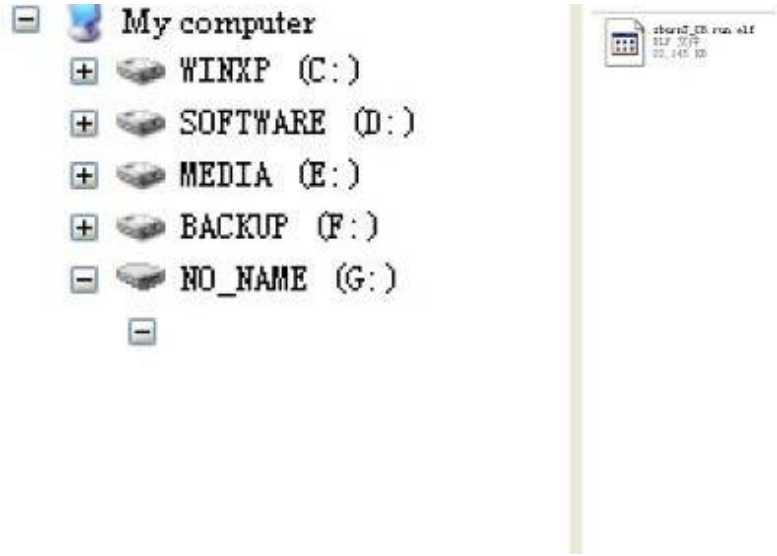
The data won't restore once you format the memory, you need to backup the data before doing the format operation.

Firmware update：

Release the firmware first if the received file is compression, as picture below。

Released:

Note: The filename usually like "***.run.elf" format should not be changed. Copy the released firmware under the root director of a memory card, then insert the card into the slot of the DVR.

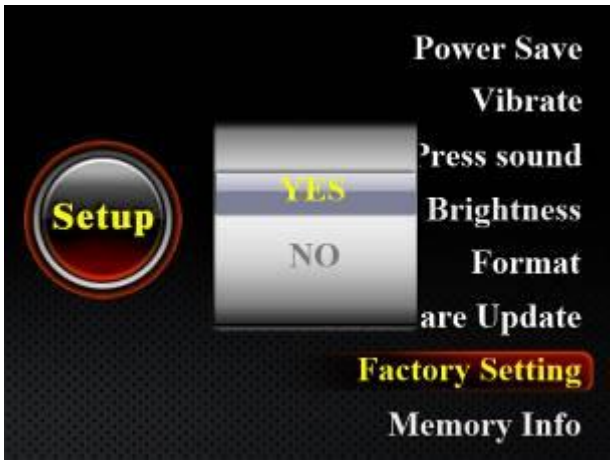


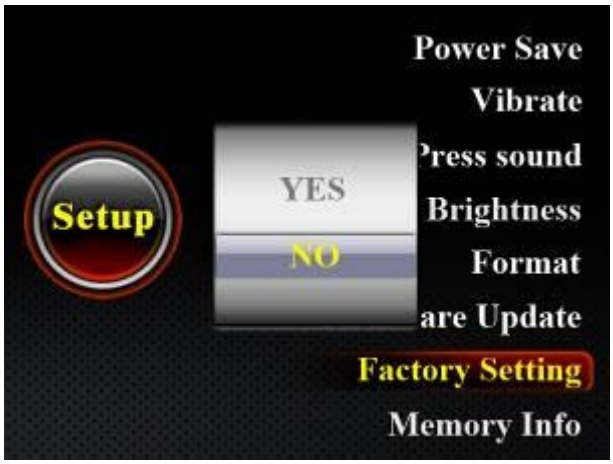
Enter the setting menu, use [⏮] and [⏭] to select "Firmware Update" menu, press [●/⏯] to start updating.

Please do not do any operation while updating, it will power off automatically after the process finished, this means the update has finished successfully.

Factory Setting

Use [⏮] and [⏭] to select Factory Setting. Press [●/⏯] to confirm entering.





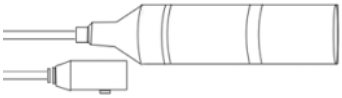
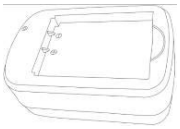
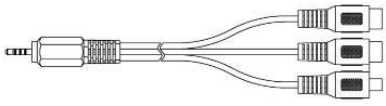
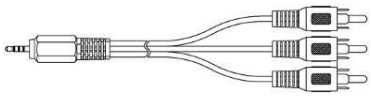
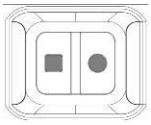
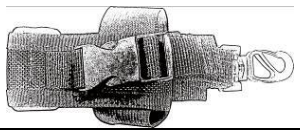
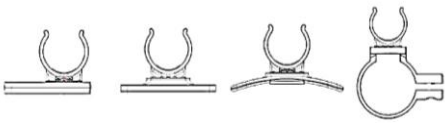
Use [⏮] and [⏭] to select recover or not. Press [●/⏯] to confirm and quit.

Memory capacity information:

Enter the setting menu, use [⏮]and [⏭] to select “Memory info” menu, and then press [●/⏯] to check.

Firmware version: model/year/month/day/hour

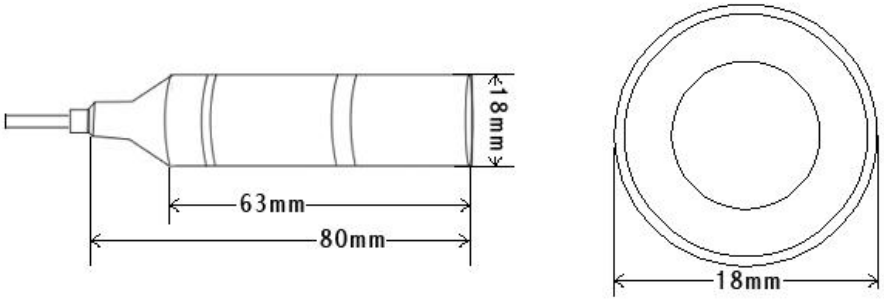
Accessories

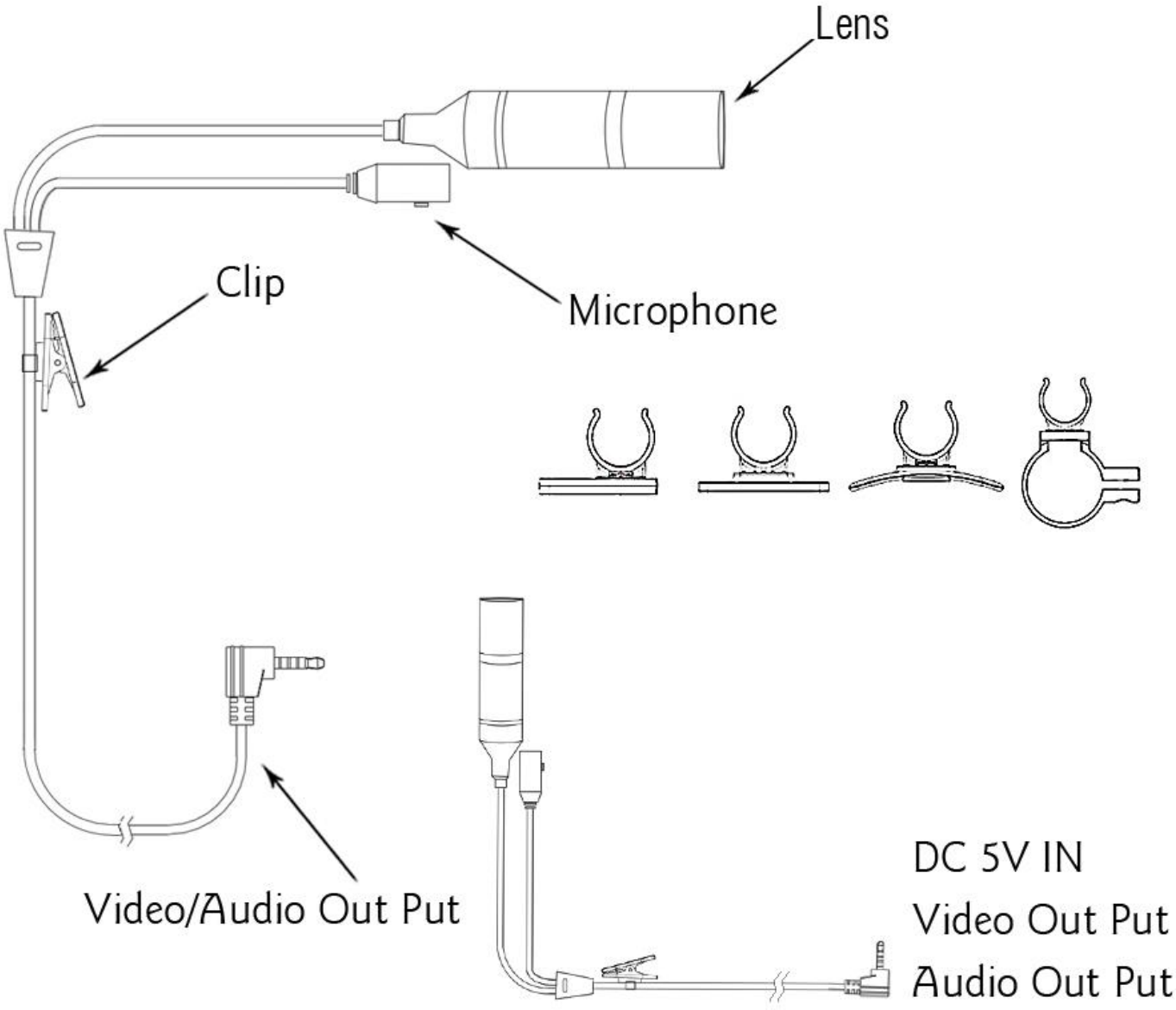
DVR x 1	
CMOS camera x 1	
Battery x 1	
AC charger x 1	
AV input cable x 1	
AV output cable x 1	
USB cable x 1	
CDR x 1	
RF remote controller x 1	
Protective pack x 1	
Bracket x 4	
Manual x 1	
Ear hook Bracket x1	

SPECIFICATIONS

DVR	
LCD	2.5inch High definition TFT LCD 960×240 dots
Video system	PAL/NTSC
Video resolution	D1 720×576@25 fps D1 720×480@30 fps
Frame rate	VGA 640×480@30fps QVGA 320×240@30fps
Video format	AVI (MPEG-4)
Audio format	WAV
Built-in flash memory	128MB
Memory compatibility	Trans Flash Card 256MB~32GB
USB Jack	High-speed USB 2.0
AV In Jack	3 rings with 2.5mm
AV Output Jack	3 rings with 2.5mm
Language	Chinese/English
Operation Temperature	-0℃-60℃
Operation Humidity	15-85%RH
Power supply	DC 5V±10%/ 500mAh
Battery	Li-ion battery 1300mAh
OS supported	2000/XP/Vista 32

Camera		
Signal format	PAL	NTSC
Image sensor	1/4 inch Color CMOS	
Total pixels	648x488	
Effective pixels	648x488	
Horizontal resolution	380 TV lines	
S/N ratio	More than 45 dB (AGC off)	
Sensitivity	3 Lux / 30 IRE @ F2.0	
Sync System	Internal	
Video output	1 [Vp-p] Composite 75Ω unbalanced	
Power supply	DC 5V ±10% / Max 100mA	
Operating temperature	-10 ℃ ~ +50 ℃	
Storage temperature	-20 ℃ ~ +60 ℃	
Dimension	63mm x 18mm	


18mm
63mm
80mm
18mm


Lens
Clip
Microphone
Video/Audio Out Put
DC 5V IN
Video Out Put
Audio Out Put

RoHS